ACCESS & OPPORTUNITY

Following the rubric for **ACCESS & OPPORTUNITY** (below), there are composite annotated examples – both hypothetical and drawn from schools participating in the RI November 2005 Peer Support Session.

Evaluation Criteria	Making Progress with Access & Opportunity	Satisfactory

Access/Opportunity	**The district/school is working towards providing evidence of**
	
	• Establishing what processes the staff will use to review curriculum alignment (courses, learning opportunities, service learning, etc.)
	
	• Involving appropriate staff in professional development activities in order to
	  o Develop a common understanding of GSEs, Depth of Knowledge, and Applied Learning across content areas
	  o Begin a systematic review of course-taking patterns
	
	• Collaboratively mapping courses/curriculum and learning activities to the GSEs
	  o What's taught?
	  o What's assessed?
	  o How does course rigor compare to GSE rigor?
	
	• Collecting and analyzing course-taking data
	  o Identifying important subgroups in school population
	  o Analyzing course-taking patterns (current and over time)
	  o Taking action to address concerns
	
	• Identifying multiple pathways (e.g., course taking patterns) to achieve the SAME common standards/GSEs
	  o Includes specially designed student support (e.g., courses, ILP activities, targeted support, etc.)
	  o Eventually, courses in all content areas
		The district/school has provided evidence of the implementation of a process that ensures
		
		• ***all students have a fair and legitimate opportunity to learn the knowledge and skills represented by the grade span expectations (GSEs) – Sample Narrative #1***
		
		• ***all students have genuine access to rigorous programs that support their individual learning plans and prepares them to meet their goals beyond high school – Sample Narrative #2***
		
		• ***students have multiple pathways through their high school programs to achieve the required standards – Sample Narrative #3***

ACCESS & OPPORTUNITY EXAMPLES

- ***All students have a fair and legitimate opportunity to learn the knowledge and skills represented by the grade span expectations (GSEs).***

Sample Narrative #1 (Part I):

This hypothetical case study (Nippentucket Bay High School) is intended to illustrate how a school/district might approach establishing a proficiency-based graduation requirements (PBGR) system that complies with state guidance and the Regents' regulation regarding graduation-by-proficiency. This case study is far from an ideal case; and, as with all case studies, illustrates *one approach* when several approaches may be acceptable.

School Context

Nippentucket Bay High School (NBHS) serves approximately 850 students in grades 9-12. It is the only high school in the Bay School District, which includes two middle schools (serving grades 6-8), five elementary schools (four K-5 schools and one school K-8) and two regional early learning centers for PK-K students with special needs. *Over the past five years*, the schools serving grades 6-8 have changed their focus from a more traditional junior high program to a program the staff feels is more appropriate to meeting the needs of young adolescents. Teaming, differentiated heterogeneous instruction, and interdisciplinary studies have taken the place of earlier homogeneous teaching of content area courses. These program changes at grades 6-8 have also assured a more a common core of curricular objectives and expectations for all students entering the ninth grade. *Additionally, all schools in the district, including the high school, have been working towards full implementation of a standards-based curriculum.*

Identifying Needs:

Nippentucket Bay High School, concerned that almost 40% of its graduates entering Rhode Island Community College require at least some remediation, has begun to struggle with its own restructuring initiative in order to nip this disturbing trend. NBHS administrators and faculty believe that while the college-prep, honors, and advanced placement courses offered at NBHS meet the more "traditional" needs of their high-achieving students, most of the "basic skills" courses offered in mathematics and English language arts seem to fall short of preparing students for meeting the intellectual challenges of post-secondary education and high-performance workplaces. In addition, the school faculty is engaged in an on-going discussion about the nature of meaningful applied learning across all content areas.

Steps Taken by NBHS to Look at Common Standards (GSEs):

1. *The ELA and mathematics departments began this work with the draft Rhode Island Grade Span Expectations (GSEs) in ELA and mathematics that were offered for review in June 2004*. During their review of GSEs, staff appreciated the specifics provided by GSEs for curriculum and assessment; and they were relieved to see that much of what they were already using for curriculum alignment (e.g., New Standards Performance Standards) was evidenced in the new GSEs. Staff time/department meetings spent doing this initial review was extremely valuable in later understanding Access & Opportunity for all students.

2. *Staff subcommittees used the ELA and mathematics GSEs over the summer of 2004 to begin mapping their courses and thinking about the assessment evidence they would be collecting*. The school's goal was to provide a more rigorous and supportive learning program to assure that ALL students have ample opportunities and support to achieve RI's standards. This review of GSEs – *which has been ongoing since that first summer* - gave the school faculty an opportunity to take a deeper look at its course offerings and support structures for internal coherence and to spur discussions of how to increase its effectiveness in reaching the school's goals and the state's standards.

3. *NBHS than formed a High School Advisory PBGR Committee in 2004-2005, which began their work by meeting with the middle school advisory committee members and high school guidance counselors during two designated district in-service days, during the 2004-2005 school year.* Since then, the NBHS Advisory Committee has attended a 3-day retreat each summer (in 2005 and 2006) for the past two years. One committee member has now been appointed the PBGR coordinator for the high school.

4. *The on-going work of the NBHS Advisory Committee (including visitations to other schools) has provided opportunities for the school's staff to* become more informed about a variety of approaches being used by other high schools related to: providing instructional supports; aligning courses/curriculum to GSEs; and ways to review and analyze district and school assessment results.

Looking at Common Assessments and Common Standards (GSEs):
After two years of staff discussions and exploration, there was agreement that exhibitions would be included as a graduation requirement for all NBSH students. The staff is still deliberating about the additional common assessment formats and experiences that might be required of all students to enable them to show their proficiency on the depth and breadth of the RI GSEs and how much assessment evidence might not be common, but specific to courses, teachers, students, or changes over time

To begin to answer the question of whether ALL students have access to the same rigorous curriculum (and therefore comparable assessment evidence), the staff decided on a strategy for all teachers to map GSEs, beginning with ELA and math, to all courses. They used templates, listing GSEs for each content area, and followed these steps:

1. Individual teachers **fill in names of courses they teach at the top**. Teachers teaching courses with the same title (e.g., Algebra I), work together. (See samples on page 4.)
2. Read descriptions of GSEs listed along the left side of the template. Ask: Do I **include this GSE content or these skills for instruction** in this course? If yes, place an "I" under the course name.
3. Next ask: Do I **assess this GSE content or these skills** in this course? If yes, place an "A" under the course name. Think about how you actually assess the GSEs to answer this question (e.g., fill in diagram, quiz, write an essay, common task, etc.).
4. Last of all, ask: **How does the course rigor compare with GSE rigor?** Look at the GSE verbs (e.g., summarize versus synthesize), look at the complexity of GSE content, and look at the GSE scope to compare the rigor. If YOUR course's expectations are more rigorous than GSE description, put a "+" and if your course expectations are less rigorous, put a "-."
5. **Compile individual teacher mappings to analyze trends**. (See sample on page 5.)

Individual Course Alignment Review: GRADE (S) _____ for Reading GSEs

The Reading GSEs are listed below by cluster. Review the descriptions of concepts and skills for each of RI's grades 9-10 reading GSEs. Then indicate which GSEs are addressed in each course you teach. Use the KEY to show GSEs explicitly taught/reinforced (I), assessed (A), and whether YOUR EXPECTATIONS are comparable to rigor of GSEs (+/√/-). Teachers teaching the same course should work together to indicate "consensus" mapping of GSEs to the course. This information will be compiled across courses and inform course revisions if needed.

KEY I=Instructed in course A=Assessed in course +/√/- = Rigor of course content compared to GSE	**Course #1** ***A Sample – Basic Eng 9***		**Course #2** ***A Sample – Earth Science 9***	**Other Learning Activity:** ***A Sample - Exhibition***
R11 – Reading Fluency and Accuracy R—11.1 Accuracy R—11.2 Fluency R—11.3 Fluency				
R2 and R3 – Vocabulary Strategies and Breadth of Vocabulary R—2.1 Using strategies R—3.1 Identifying synonyms R—3.2 Selecting appropriate words	***R-2.1 – I, -*** ***Vocab strategies taught, not assessed, course is less (-) rigorous than GSE***			
R4 – Initial Und of Literary Text R—4.1 Identify, describe, or make predictions R—4.2 Paraphrase or summarize R—4.3 Generate questions R—4.4 Identify text features R—4.5 Identify literary devices				
R5, R6, and R16 – Analysis and Interpretation of Literary Text R—5.1 Explain and support R—5.2 Examine characterization R—5.3 Make inferences R—5.4 Explain point of view R—5.5 Explain author's message or theme R—6.1 Use of literary devices R—16.1 Compare stories R—16.2 Provide relevant details	***R-5.1 – I, A, √*** ***Skills taught, assessed, of comparable/same (√) rigor to GSE***			
R7 – Initial Understanding of Informational Text R—7.1 Obtain information R—7.2 Using information to answer R—7.3 Organizing information R—7.4 Generate questions R—7.5 Identify text features			***R-7.1 – A, √*** ***Skills assessed and of comparable rigor to GSE***	***R-7.2 – A √*** ***R-7.3 – A √*** ***Not taught directly Course rigor comparable to GSE***
R8 - Analysis and Interpretation of Informational Text R—8.1 Explain connections R—8.2 Synthesize and evaluate R—8.3 Draw inferences R—8.4 Distinguish fact/opinion, bias R—8.5 Make inferences R—8.6 Evaluate clarity and accuracy				***R-8.2 – A –*** ***Not taught directly Rigor is less than GSE – they summarize, not synthesize & eval***
R15 – Research across Content Areas R—15.1 Identify potential sources R—15.2 Evaluate information R—15.3 Organize, interpret information R—15.4 Draw conclusions			***R-15.1-4– A, √*** ***Skills assessed and of comparable rigor to GSE***	

Sample **ELA High School Course Alignment Review Matrix – GRADE 9 course summary**

The reading content clusters list related GSEs for local curriculum and assessment. After reviewing the descriptions of reading concepts and skills for each of RI's HS reading GSEs, teachers indicated which GSEs are consistently taught, assessed, and have comparable expectations for rigor in each course offered to grade 9 students. **This form summarizes course alignment for all ELA courses offered to grade 9 students at NBHS.** (* = required for all grade 9 students)

Reading Content Clusters	**Course: Eng 9 Lev 1**	**Course: Eng 9 Lev 2**	**Course: Eng 9 Hon**	**Course: Basic Writing***	**Course: Lit Support**

R11 – Reading Fluency and Accuracy R—11.1 Accuracy R—11.2 Fluency R—11.3 Fluency	R—11.1				R—11.1
R2 and R3 – Vocabulary Strategies and Breadth of Vocabulary R—2.1 Using strategies R—3.1 Identifying synonyms R—3.2 Selecting appropriate words	R—2.1 R—3.1 R—3.2	R—3.1 R—3.2	R—3.1 R—3.2	R—3.2	R--2.1 R—3.1 R—3.2
R4 – Initial Understanding of Literary Text R—4.1 Identify, describe, or make predictions R—4.2 Paraphrase or summarize R—4.3 Generate questions R—4.4 Identify text features R—4.5 Identify literary devices	R—4.1 R—4.2 R—4.3	R—4.1 R—4.2 R—4.3			R—4.1 R—4.2 R—4.3 R—4.4
R5, R6, and R16 – Analysis and Interpretation of Literary Text R—5.1 Explain and support R—5.2 Examine characterization R—5.3 Make inferences R—5.4 Explain point of view R—5.5 Explain author's message or theme R—6.1 Use of literary devices R—16.1 Compare stories R—16.2 Provide relevant details	R—5.1 R—5.3 R—5.4 R—5.5 R—6.1 R—16.1	R—5.1 R—5.2 R—5.3 R—5.4 R—5.5 R—6.1 R—16.1 R—16.2	R—5.1 R—5.2 R—5.3 R—5.4 R—5.5 R—6.1 R—16.1 R—16.2		R—5.1 R—5.3 R—5.5
R7 – Initial Understanding of Informational Text R—7.1 Obtain information R—7.2 Using information to answer R—7.3 Organizing information R—7.4 Generate questions R—7.5 Identify text features	R—7.1 R—7.2 R—7.3	R—7.1 R—7.2 R—7.3	R—7.1 R—7.2 R—7.3	R—7.1 R—7.3	R—7.1 R—7.2 R—7.3 R—7.5
R8 - Analysis and Interpretation of Informational Text R—8.1 Explain connections R—8.2 Synthesize and evaluate R—8.3 Draw inferences R—8.4 Distinguish fact/opinion, bias R—8.5 Make inferences R—8.6 Evaluate clarity and accuracy	R—8.1 R—8.3 R—8.4 R—8.5	R—8.1 R—8.3 R—8.4 R—8.5	R—8.1 R—8.2 R—8.3 R—8.4 R—8.5 R—8.6		R—8.1 R—8.3 R—8.4
R12 and R13 – Reading Strategies R—12.1 Using self-monitoring R—13.1 Comprehension strategies	R—13.1	R—13.1			R—12.1 R—13.1
R14 – Habit of Reading Widely R—14.1 Reading with frequency R—14.2 Wide range of texts R—14.3 Multiple texts for depth *R—17 Literate Community*	R—14.1 R—14.2	R—14.1 R—14.2	R—14.1 R—14.2 R—14.3		R—14.1
R15 – Research across Content Areas R—15.1 Identify potential sources R—15.2 Evaluate information R—15.3 Organize, interpret information R—15.4 Draw conclusions				R—15.1 R—15.2 R—15.3 R—15.4	

Analysis of Course Mapping – What did NBHS learn about Access and Opportunity for grade 9 students in ELA?

At NBHS, five ELA courses are offered to freshman. Basic Writing is required for all students. One additional English course is also required for ALL grade 9 students – English 9 Level 1, English 9 Level 2, English 9 Honors, OR Literacy Support. The Literacy

Support course is required for those students with a Personal Literacy Plan (PLP). Course Mappings for the 5 English courses offered to freshman at NBHS identified several interesting and important factors about student access and opportunities for demonstrating learning of high school reading GSEs. Briefly, here are the key points that were identified by the English department after reviewing the summary grade 9 matrix (seen on page 4).

- **At your tables, discuss one or more of the NBHS observations and make some recommendations for possible actions to be taken.**

Issues Identified through Course Mapping	**Recommend Possible Actions to be Taken**
1. Most teachers feel they teach to some GSEs but do not consistently assess them or even assess them at all formally. These are **lost opportunities for formative and summative assessment**.	
2. Higher level thinking skills (R5, 6, 8, 16 - analysis and interpretation of text) are not stressed in all English courses. They seem to be taught primarily in Honors English only. Students in the Literacy Support course are getting extra support only on basic skills. English Level 1 and 2 could include more.	
3. A range of comprehension strategies (R 12, 13) is not taught and assessed in all English courses. There is an assumption that high-performing students do not need this support, even though their texts are increasingly more difficult. Many strategies could be applied to other content areas for informational texts.	
4. Some teachers have already developed **excellent models for assessing some areas/GSEs.**	
5. A range of texts is not used for instruction and assessment in all English courses. Is there an assumption that all students do not need this variety of text types? This will not help to prepare all students for the high school assessment.	
6. GSEs are for grades 9-10, not just grade 9… and should not only be taught and assessed in English courses.	
7. Connections to Applied Learning Standards - many of the Applied Learning Standards overlap with ELA GSEs (research, communication, critical thinking, etc.). Are Applied Learning Standards consistently addressed instructionally in ELA courses and across the school?	
Other observations?	

The staff at NBHS identified these possible actions to be taken…how do they compare with yours?

Issues Identified through Course Mapping	NBHS's Possible Actions to be Taken
1. Most teachers feel they teach to some GSEs but do not consistently assess them or even assess them at all formally. These are **lost opportunities for formative and summative assessment**.	Develop/find local assessments that can be easily used for areas such as: fluency, class discussions, range of genres. Good assessment models in use (Literacy Support course might have some) should be identified and shared across classrooms.
2. Higher-level thinking skills (analysis and interpretation of text) are not stressed in all English courses. They seem to be taught primarily in Honors English only. Students in the Literacy Support course are getting extra support only on basic skills. English Level 1 and 2 could include more.	All ELA courses need to include instruction and assessment of analysis and interpretation of text. This can be done even if the texts differ in difficulty. Teacher perceptions about low-performing students not being able to apply higher-level thinking must also be addressed.
3. A range of comprehension strategies is not taught and assessed in all English courses. There is an assumption that high-performing students do not need this support, even though their texts are increasingly more difficult. Many strategies could be applied to other content areas for informational texts.	All ELA courses – and other content area courses - need to include some direct instruction of reading strategies appropriate to a wider range and difficulty of texts. This would help all students to be more successful in reading and understanding text book and other reading and research assignments. Professional development needed for ALL staff to ensure content-specific appropriateness and consistency across courses.
4. Some teachers have already developed **excellent models for assessing some areas/GSEs.**	Good models should be identified and shared across classrooms. Could incorporate into department meetings first, then wider sharing at staff meetings or professional development workshops.
5. A range of texts is not used for instruction and assessment in all English courses. There is an assumption that all students do not need this variety of text types. This will not help to prepare all students for the high school assessment.	The focus of in-service time or department meetings for English teachers: locate appropriate texts of varying difficulty, text types, and interest for instruction and assessment.
6. GSEs are for grades 9-10, not just grade 9… and should not only be taught and assessed in English courses.	During grades 9-10 ALL students must have access & ample opportunities to demonstrate learning of GSEs and *Common Core*. Grade 10 course offerings need to be reviewed in conjunction with grade 9 course offerings across all courses
7. Connections to Applied Learning - many of the Applied Learning Standards overlap with ELA GSEs (research, communication, critical thinking, etc.). Are Applied Learning Standards consistently addressed instructionally in ELA courses and in courses across the school?	Review *assessments* used in ELA and across other content areas to assure that *ALL* students have multiple opportunities across grades for learning and getting feedback on their performance related to the Applied Learning Standards. This will provide important preparation before grade 12 for senior exhibitions.

Sample Narrative #1 (Part II):

Analyzing Course Enrollment Patterns for Grade 9 Students at NBHS

As stated previously, 5 courses are offered to the freshman students at NBHS. Basic Writing is required for all grade 9 students. All students also take one additional English course – English 9 Level 1, English 9 Level 2, English 9 Honors, or Literacy Support. The Literacy Support course is required for those students with a Personal Literacy Plan (PLP). Literacy Support is an ELA course providing targeted remediation to some students - the intent being to reduce the number of potential high school drop-outs and to increase the number of NBHS students who can enter RI community colleges without needed intensive remediation.

The review of course enrollment patterns for freshman at NBHS helped to identify which students had the least and/or greatest access to the full and rich curriculum and instructional opportunities offered at the school. (See two tables below using the same data for analysis.)

***Sample* ELA High School Course Enrollment for GRADE 9**

This table summarizes course enrollment patterns for all ELA courses offered to grade 9 students at NBHS. (Basic Writing is required for all grade 9 students)

Freshman Student Population	**Course: Eng 9 Lev1**	**Course: Eng 9 Lev2**	**Course: Eng 9H**	**Course: Basic Writing**	**Course: Literacy Support**
All grade 9 students = 280	**125**	**75**	**38**	**All students**	**42**
Grade 9 students by Race/Ethnicity **Caucasian = 135** **Hispanic = 75** **African American = 50** **Other = 20**	 **C =50** **H = 30** **A = 21** **O = 6**	 **C = 58** **H = 18** **A = 15** **O = 2**	 **C = 22** **H = 8** **A = 6** **O = 2**	**All students**	 **C = 5** **H = 19** **A = 8** **O = 10**
Regular Ed Students = 254	**116**	**72**	**37**	**All students**	**29**
IEP Students = 26	**9**	**3**	**1**	**All students**	**13**

	LitSup	Eng9L1	Eng9L2	Eng9H	Total
Caucasian	5	50	58	22	135
Hispanic	19	30	18	8	75
African-American	8	21	15	6	50
Other	10	6	2	2	20
Total	42	125	75	38	280
% of Total	15.0	44.6	26.8	13.6	
RegEd	29	116	72	37	254
SpEd	13	9	3	1	26
SPED % of Course	44.8	7.8	4.2	2.7	10.2

The NBHS staff re-organized course enrollment data for analysis.

The course enrollments were broken down by % of major racial/ethnic subgroups and by regular/special education groups.

Analysis and Action Planning Using Course Enrollment Data at NBHS
After discussing the enrollment data, the NBHS staff identified several issues related to the course enrollment patterns, and also some possible recommended actions.

Discuss with a partner some other actions they could take.

Issues Identified through Course Enrollment Patterns	**NBHS's Possible Actions to be Taken**
1. Almost 60% of all students are enrolled in Literary Support or English Level 1, which means they are not exposed to some higher-level skills (e.g., in analysis of informational text and synthesizing across multiple texts) in their ELA courses.	*Establish a policy that students in Literacy support are taking 2 courses, not one English course. Strengthen English Level 1 to include more of these higher-level skills. Emphasize these skills in other subject-matter courses these students take, or in their other learning experiences.*
2. The majority of Hispanic (65%), African-American (59%), and Other students (80%) are enrolled in the lower two courses, Literary Support and English Level 1. 40% of all Caucasian students are enrolled in these two courses.	*Work to increase the proportional enrollment in English Level 2 and Honors for Hispanic, African-American, and Other students by working with the middle school.*
3. 15% of all grade 9 students are enrolled in Literary Support, including 50% of all Other students.	
4. About the same percentage of students in each racial/ethnic subgroup are enrolled in English Honors (10%), indicating students from all racial/ethnic subgroups can qualify for rigorous courses.	
5. NBHS has a lower percentage (10%) of students identified as special education than the state average. Special education students are three times more likely to be enrolled in Literary Support (45% of all SPED students) than are regular education students (15%).	
6. Females and males are taking higher level science courses equally	
7. Tried to track students moving from lower level offerings to higher level, but found it difficult to do using current data.	
8. There seem to be gate-keeping courses as prerequisites to higher level courses. This impacts transfer students in larger numbers than general populations	
Other observations/issues?	

The staff at NBHS identified these possible actions to be taken…how do they compare with your recommendations?

Issues Identified through Course Enrollment Patterns	NBHS's Possible Actions to be Taken
1. Almost 60% of all students are enrolled in Literary Support or English Level 1, which means they are not exposed to some higher-level skills (e.g., in analysis of informational text and synthesizing across multiple texts) in their ELA courses.	*Establish a policy that students in Literacy support are taking 2 courses, not one English course. Strengthen English Level 1 to include more of these higher-level skills. Emphasize these skills in other subject-matter courses these students take, or in their other learning experiences.*
2. The majority of Hispanic (65%), African-American (59%), and Other students (80%) are enrolled in the lower two courses, Literary Support and English Level 1. 40% of all Caucasian students are enrolled in these two courses.	*Work to increase the proportional enrollment in English Level 2 and Honors for Hispanic, African-American, and Other students by working with the middle school.*
3. 15% of all grade 9 students are enrolled in Literary Support, including 50% of all Other students.	*Review placement policies—do all these students need to be placed in this course? Could a supplemental summer course be offered prior to grade 9 to help borderline students enroll in English Level 1 instead? Does the school have the ability to assess accurately the literary abilities of Other students? At-risk students going from grade 8 to 9 must take a summer support courses.*
4. About the same percentage of students in each racial/ethnic subgroup are enrolled in English Honors (10%), indicating students from all racial/ethnic subgroups can qualify for rigorous courses.	*Work to increase the total enrollment in English Honors by one section, or to approximately 54 students over the next five years. This can be done by working with the middle school to strengthen the middle school curriculum.*
5. NBHS has a lower percentage (10%) of students identified as special education than the state average. Special education students are three times more likely to be enrolled in Literary Support (45% of all SPED students) than are regular education students (15%).	*Review placement policies. Review individual cases. Work with middle school. May need to supplement with additional instructional opportunities.*
6. Females and males are taking higher level science courses equally	Establish policies for special cases (e.g., transfer students from other states), such as having screening assessments to give quick information about proficiency
7. Tried to track students moving from lower level offerings to higher level, but found it difficult to do using current data.	
8. There seem to be gate-keeping courses as prerequisites to higher level courses. This impacts transfer students in larger numbers than general populations	
Other issues?	

- ***All students have genuine access to rigorous programs that support their individual learning plans and prepares them to meet their goals beyond high school***

Sample Narrative # 2 (adapted from *Coventry High School*):

To assure that all courses in each content area provide access and opportunity to the grade span expectations and Applied Learning, all courses are mapped to not only identify alignment to GSEs, but also to level of rigor. The district is also addressing rigor of tasks within courses. Using a common classroom task sheet, course assignments are analyzed to see how Applied Learning is embedded. The example below shows a modified common task tool template (from the RI common task network toolkit and portfolio toolkit materials) for an Algebra assignment.

Teacher: Gilleheeney **Course:** Algebra I part 1

PART I: GENERAL DESCRIPTION

Name of Task: Statistical Time

Describe the task and what the student swill be expected to do:

The following task is to find two sets of relevant data and find their mean, median, and mode. They must write two detailed paragraphs about their data and another about what mean, median, and mode are. They will also be required to make an oral presentation about their findings.

PART II: CONNECTIONS

List each expectation/standard that connects to the task and explain how the task addresses each expectation/standard:

Learner Expectations:

Communication:

1c: Speak, listen and converse intelligently in order to share information, build relationships, and promote understanding.
Students will communicate through presenting to the class their findings.

Critical Thinkers & Problem Solvers:

2b: Define the problem.
The students will identify what relevant data they are comparing.

2c: Collect and organize information.
The students will find their relevant data.

2e: Compile, interpret, and organize information.
Students will analyze and nearly present their data.

2f: Draw logical conclusions.
Students will draw their own conclusions about their data.

Clear links to three of the Applied Learning Standards

Content Standards and Indicators:

Function and Algebra (see GSEs below)

Clear links between the tasks and the mathematics GSEs

Grade Span Expectations:

M(DSP)-10-3 Organizes and displays one and two variable data using parallel box and whisker plots, scatter plots, histograms, or frequency distributions to analyze the data to formulate or justify conclusions, make predictions, or to solve problems (Local Options); or identifies representations or elements of representations that best display a given set of data or situation, consistent with the representations required in M(DSP)-10-1.

10-1 Interprets (interpolates or extrapolates) a given representation(s) (parallel box-and whisker, scatter plots, pictographs, bar graphs, line graphs, circle graphs, histograms, frequency charts to make observations, to answer questions, justify or critique conclusions to make predictions, or to solve problems within

Applied Learning/Application:

Application: Students will apply the knowledge and skills they have learned to a real world problem situation.

Explain how the task is meaningful, rigorous, and/or authentic:

Rigor and authenticity of assessment task is discussed.

This task is meaningful in that it allows the students to use the skills they have acquired through measures of central tendency in a situation that is of interest to them.
It is rigorous in that it requires them to find two sets of data, properly display them, make comparisons and conclusions.
The task is authentic since it uses actual data and students are drawing valid conclusions from the data.

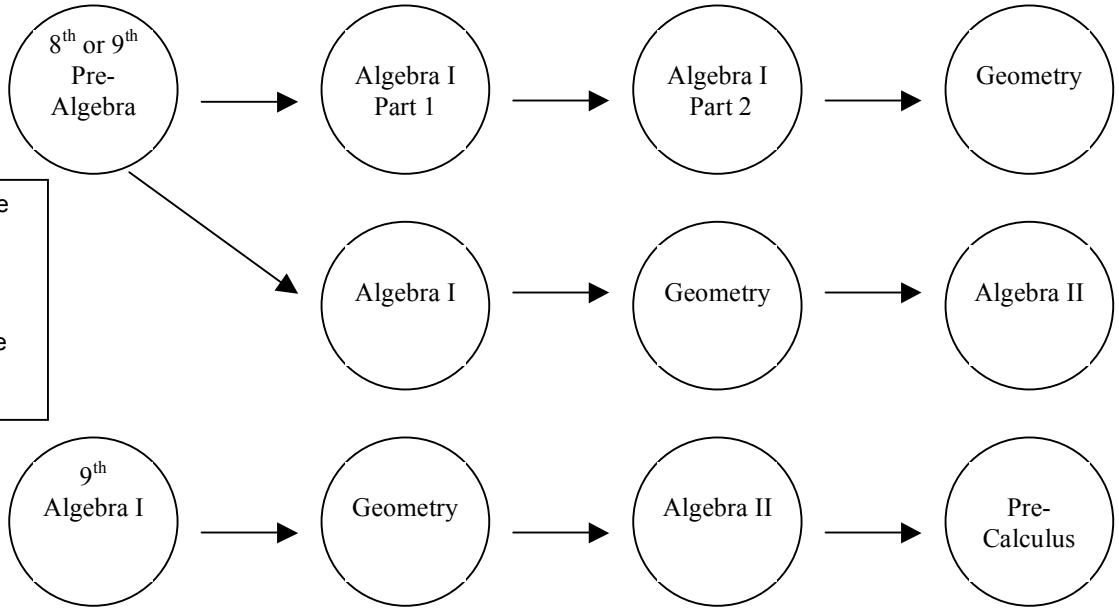
- ***Students have multiple pathways through their high school programs to achieve the required standards.***

Sample Composite Narrative #3:

All students have access to multiple academic and career pathways for selecting courses to fulfill their high school four-year plan and graduation goals. The following graphic shows the combination of courses a student can take to meet proficiency of the Grades 9-10 mathematics GSEs. For example, based on middle school performance data in mathematics, students might begin their freshman year taking: Algebra I; OR taking Pre-Algebra and then taking Algebra I; OR taking Pre-Algebra, Algebra I Part 1, and then Algebra I Part 2 **to demonstrate leaning of the same mathematics GSEs.**

Mathematics Pathways: Illustrated by Multiple Course-Taking Patterns

Three possible course pathways for achieving mathematics proficiency are illustrated.



(Graphic developed using a model from Blackstone Academy Charter School and information from Cranston's course mappings for mathematics)